



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/606,440	06/26/2003	John Robert Lockemeyer	TH-1808 US	2927

7590

08/18/2005

Richard F. Lemuth
Shell Oil Company
Intellectual Property Services
P. O. Box 2463
Houston, TX 77252-2463

EXAMINER

HAILEY, PATRICIA L

ART UNIT

PAPER NUMBER

1755

DATE MAILED: 08/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/606,440

Applicant(s)

LOCKEMEYER ET AL.

Examiner

Patricia L. Hailey

Art Unit

1755

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 June 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-38 is/are pending in the application.
- 4a) Of the above claim(s) 26-38 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 06/13/05.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Applicants' remarks and amendments, filed on June 9, 2005, have been carefully considered. No claims have been canceled or added; claims 1-38 remain pending in this application.

Election/Restrictions

1. Claims 26-38 remain withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected process for the epoxidation of an olefin (claims 26-37), and to a non-elected process for producing a 1,2-diol, 1,2-diol ether, or an alkanolamine (claim 38), there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on December 22, 2004.

Withdrawn Rejections

The 112(2) rejection of claim 4 stated in the previous Office Action has been withdrawn in view of Applicants' amendment to this claim.

The provisional obviousness-type double patenting rejection of claims 1, 3, 4, 6-17, and 19-25 as being unpatentable over claims 1-12 of copending Application Serial No. 10/607,346 has been withdrawn in view of Applicants' Terminal Disclaimer filed on June 9, 2005.

New Ground of Rejection

The following New Ground of Rejection is being made in view of Applicants' amendments and remarks regarding the rejection of record.

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 103

3. *Claims 1-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hayden et al. (U. S. Patent No. 4,007,135).*

Hayden et al. teach catalysts for the production of alkylene oxides comprising silver supported on a support having a specific surface area ranging from 0.04-10 m²/g, median pore diameters of 0.3 to 15 microns, and also comprising a promoting amount of metals such as niobium, tantalum, molybdenum, tungsten, vanadium, chromium, calcium, magnesium, strontium, or barium (considered to read upon the limitation "selectivity enhancing dopants"). See col. 1 lines 20-41 of Hayden et al., as well as col. 2, lines 16-30.

The support may be alumina, and is preferably alpha-alumina. Further, the catalyst preferably comprises 3 to 15% by weight of silver. See col. 3, lines 21-50 of Hayden et al.

Because Hayden et al. disclose an alpha-alumina support having a surface area comparable to that respectively claimed, the weight percentage range of the silver

recited in this reference is considered to read upon Applicants' claim limitations regarding the quantity of silver (e.g., "0.17 g/m² surface area of the support").

At col. 5, line 28 to col. 6, line 4, Hayden et al. discuss the conversion of ethylene to ethylene oxide, and of propylene to propylene oxide, in the presence of the aforementioned catalysts. These conversions involve contact of the catalyst with feeds comprising either ethylene or propylene, oxygen (in the form of air or commercial oxygen), carbon dioxide, and, optionally, a reaction modifier. Temperatures at which contact takes place ranges from 190°C-270°C for ethylene, and from 200°C to 300° for times sufficient to convert up to 50% of, for example, propylene.

Example 7 of Hayden et al. depicts the preparation of a catalyst comprising alpha-alumina, silver, and barium, wherein the support is impregnated with barium hydroxide, followed by heating in an air atmosphere at 300°C for 60 minutes, followed by forming a second solution of silver and barium acetates. The final catalyst is passed over with a gas mixture comprising 30% ethylene, 8% oxygen, 62% nitrogen, and 4 ppm ethylene dichloride, during which selectivity and conversion were determined at 240°C.

Hayden et al. do not specifically disclose a method for improving the selectivity of a "...catalyst", as recited in the instant claims. However, because Hayden et al. disclose the same or similar method steps, conditions, and catalyst components as respectively claimed, it would have been obvious to one skilled in the art at the time the invention was made to reasonably expect that the method of Hayden et al. would result

in improved catalyst selectivity, in view of the strong similarities between Hayden et al. and the claimed invention.

Response to Arguments

In response to Applicants arguments that none of the Examples of Hayden et al. teach the employment of rhenium, molybdenum, or tungsten, it is the Examiner's position that, while this is true, the Examples of a reference are not to be construed as Patentees' sole invention. Teachings of a reference are not limited to a preferred embodiment. In re Boe, 145 U.S.P.Q. 507 (CCPA 1966).

Because Hayden et al. disclose the feasibility in employing metals such as Groups IA and IIA metals, molybdenum, and tungsten, such disclosure is considered reasonable motivation and teaching to employ these metals, and is also considered sufficient reading upon Applicants' claims in their present form.

In view of Applicants' arguments, Hayden et al. is no longer considered to anticipate Applicants' claims. However, Applicants' claims continue to be considered obvious in view of the teachings of Hayden et al., as discussed above.

With respect to Applicants' arguments regarding the prior art's lack of "reasonable expectation of success", it is the Examiner's position that, because the prior art reads upon Applicants' claims regarding the claimed catalyst components and method parameters, as presently claimed, any disclosed or claimed benefits resultant

from the claimed invention would be expected to also be exhibited by the prior art, absent the showing of convincing evidence to the contrary.

For these reasons, Applicants' arguments are not persuasive.

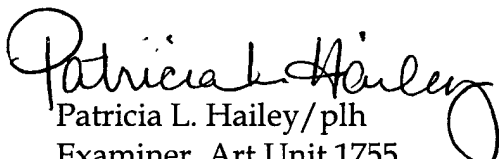
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Patricia L. Hailey whose telephone number is (571) 272-1369. The examiner can normally be reached on Mondays-Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jerry Lorengo, can be reached on (571) 272-1233. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group 1700 Receptionist, whose telephone number is (571) 272-1700.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Patricia L. Hailey/plh
Examiner, Art Unit 1755
August 15, 2005


J.A. LORENZO
SUPERVISORY PATENT EXAMINER